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September 20, 2002

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SEP 20 2002

BOX AF

Commissioner for Patents  
Washington, DC 20231

TECH CENTER 1600/2900

Re: SN 09/531,120 "PLANT CHROMOSOME COMPOSITIONS AND METHODS"  
Daphne Preuss, et al.  
Matter No. 10008241/ARCD:309US

Commissioner:

Enclosed for filing in the above-referenced patent application is:

- (1) A Request for Reconsideration Under 37 C.F.R. § 1.113;
- (2) A Declaration of Daphne Preuss, Gregory Copenhaver and Kevin C. Keith Under 37 C.F.R. § 1.132 with Exhibits A-S; and
- (3) A return postcard to acknowledge receipt of these materials. Please date stamp and mail this postcard.

Should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct said fees from Fulbright & Jaworski L.L.P. Account No.: 50-1212/10008241/RH10056.

Respectfully submitted,

Robert E. Hanson  
Reg. No. 42,628  
Attorney for Applicants

REH/jmh

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#22  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of:  
Daphne Preuss, *et al.*

Group Art Unit: 1634

SEP 25 2002

Serial No.: 09/531,120

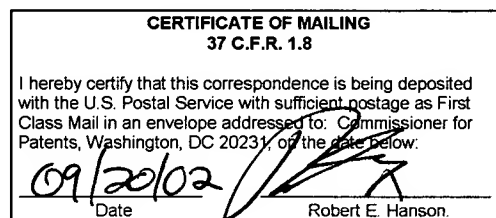
Examiner: A. Chakrabarti

TECH CENTER 1600/2900

Filed: March 17, 2000

Atty. Dkt. No.: ARCD:309US

For: PLANT CHROMOSOME  
COMPOSITIONS AND METHODS



**REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. §1.113**

Hon. Commissioner for Patents  
Washington, D.C. 20231

Sir:

This is in response to the final Office Action mailed on June 20, 2002, for which the three-month date for response is September 20, 2002. No fees are believed due in connection with the filing of the instant paper. However, should any such fees become due under 37 C.F.R. §§ 1.16 to 1.21 for any reason relating to the instant response, the Commissioner is authorized to deduct said fees from Fulbright & Jaworski L.L.P. Account No.: 50-1212/10008241/10056/REH.

Please amend the application as indicated below:

**A. Status of the case**

The final Office Action entered a new ground of rejection. Applicants thus respectfully request the withdrawal of the finality of the Office Action mailed June 20, 2002. As indicated in item 6, page 5 of the Action, Applicants' arguments in their Request for Reconsideration were deemed moot in view of the new ground of rejection. The new ground was not necessitated by an amendment to the claims. As indicated in the previous Request for Reconsideration, the two claim amendments made in the Request for Reconsideration were to insert the subject matter of claim 109 into claim 128, which claim 128 had previously incorporated by reference, and to correct a typographical error in claim 143.

**B. Status of the Claims**

No amendments have been made to the claims. Claims 128-146 are pending in the case and are presented for reconsideration.

**C. Rejections Under 35 U.S.C. §103(a)**

The Action rejects claims 128-140 and 142-146 under 35 U.S.C. §103(a) as allegedly obvious over Richards *et al.* (U.S. Patent No. 5,270,201). In particular, the Action alleges that Richards *et al.* suggests preparing transgenic cells and recombinant DNA constructs which comprise plant centromeres. It is further alleged that Richards *et al.* inherently suggests transgenic plants comprising minichromosome vectors including a plant centromere. It is alleged that, although Richards *et al.* is directed to cloning of a telomere and not a centromere, it would have been obvious for one of skill in the art to substitute a centromere therefore. Applicants respectfully traverse.

In order to establish a *prima facie* case of obviousness, three criteria must be met: (1) there must be some motivation or suggestion in the cited prior art or in the knowledge generally available to one of skill in the art to combine the teachings to arrive at the invention, (2) there must be a reasonable expectation of success, and (3) the prior art must teach or suggest all claim limitations. See *In re Vaeck*, 947 F.2d 488, 20 USPQ 2d 1438 (Fed. Cir. 1991), see also, M.P.E.P. § 2142. Here, the rejection fails because, at a minimum, there is lacking both a reasonable expectation of success for one skill in the art to arrive at the invention and a teaching of all of the claim limitations.

As set forth in detail in Applicants' previous Request for Reconsideration, Richards *et al.* does not provide a plant centromere. Now provided herewith is further evidence of this failure of Richards *et al.* to teach or suggest the claimed invention in the form of a Declaration Under 37 C.F.R. §1.132 on behalf of Daphne Preuss, Gregory P. Copenhaver and Kevin C. Keith. As set forth in the declaration, none of the cited examples of the Richards *et al.* reference describes a plant centromere or suggests a method that one skilled in the art could use to obtain a plant centromere. Richards *et al.* mentions plant centromeres but does not actually provide the plant centromeres or enabling methodology for obtaining plant centromeres.

The Declaration also refutes the rebuttal to Applicants' arguments at page 6 of the final Office Action, which alleges that Examples 10-14 of Richards *et al.* describe different centromere sequences that "were actually experimentally studied and found to be functional." In particular, as stated in the Declaration, Example 10 indicates that radio-labeled probes consisting of telomere sequences can be used to detect telomere-like sequences within chromosomes, but the example does not refer to plant centromeres nor provide any methods for obtaining them. Example 11 details a method for isolating and cloning DNA fragments containing interstitial

telomere sequences and describes the sequencing of one such clone pAtT12, but does not refer to plant centromeres nor suggest any methods for obtaining them. Example 12 details a method for genetically mapping interstitial telomere sequences and describes the result of mapping a marker associated with the pAtT12 clone. Richards *et al.* note that the map position obtained was “in the vicinity of the centromere” but do not suggest that the pAtT12 clone itself is comprised of centromere DNA, and such interstitial telomere sequences have been found in abundance at chromosomal locations far from the centromere. Example 13 describes moderately repetitive sequences at the end of the pAT12 clone (the ‘flanking sequence’) which, when used as a radio-labeled probe, hybridized to sequences “in the vicinity” of the centromere on chromosome 5. Again, however, Richards *et al.* do not indicate that sequence comprises centromere DNA, but rather that it is found near centromeres. Finally, Example 14 describes the sequence characteristics of the pAtT12 flanking region, which is referred to as centromere-linked, but not as being centromere DNA itself. It is definitional that any DNA residing near the centromere is centromere-linked but also not actually centromeric. Thus, the cited examples do not describe centromere sequences nor provide a method for obtaining them.

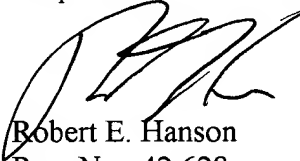
The evidence presented by Applicants demonstrates that the cited art fails to teach or suggest all elements of the claims, as is required to maintain a rejection under 35 U.S.C. §103(a). *See, e.g., In re Vaeck* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); *see also In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) (“All words in a claim must be considered in judging the patentability of that claim against the prior art.”). The Action has also not alleged any other particular teaching said to provide plant centromeres, other than stating generally that Richards *et al.* “inherently suggests” minichromosome vectors comprising plant centromeres and plant cells transformed therewith. In this regard, Applicants note that, for

inherency with respect to a particular teaching, the Office must show that the teaching necessarily flows from the disclosure. *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). No such showing has been made that plant centromeres necessarily flow from the Richards *et al.* disclosure and the evidence presented herewith demonstrates that there is no basis to so conclude. Removal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

**D. Conclusion**

In light of the foregoing, applicants submit that all claims are in condition for allowance, and an early indication to that effect is earnestly solicited. The examiner is invited to contact the undersigned (512)536-3085 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

  
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